



AWARENESS ON E-WASTE AMONG GOVERNMENT, GOVERNMENT AIDED AND SELF-FINANCED SCHOOL HIGHER SECONDARY STUDENTS

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ABSTRACT

The main objective of the study is to find out whether there is any significant difference among government, aided and self-financed school higher secondary students in their awareness on e-waste. The investigator used Survey method research. Awareness on e-waste scale is prepared by the investigator and guide (2018) for collecting data. The positive items in the used research tool conversely a score of 3 was given for agree, 2 for undecided, 1 for disagree. The investigator has selected 300 XI and XII students from 10 higher secondary schools of Kovilpatti Taluk. For selecting the students the investigator used random sampling method. For inferential analysis of collected data, the investigator used F-test and Scheffe test. The investigator found that there is significant difference between aided and self-financed school higher secondary students and also between government and self-financed school higher secondary students in their awareness on e-waste.

KEYWORDS: Awareness, e-waste, higher secondary students, self-financed school.

INTRODUCTION:

Electronics industry is the world's largest and fastest growing manufacturing industry. Rapid growth, combined with rapid product obsolescence and discarded electronics is now the fastest growing waste fraction, accounting for 8% of all municipal waste in European Union (The Economist, 2005). In developing countries, on an average it equals to 1% of total solid waste and is expected to grow to 2% by 2010 (UNEP, 2009). Electronic waste commonly known as E-waste or Waste Electrical and Electronic equipment (WEEE), or end-of-life (EOL) electronic are the electronic appliances such as computers, laptops, TVs, DVD players, mobile phones, MP3 players etc. including their assembly, sub-assembly, components and consumables, which have been disposed of or unwanted by their original users. E-waste is the combination of both the hazardous (PBR, lead, mercury, chromium, cadmium, etc) and non-hazardous as well as precious material (gold, silver, copper, etc.) (DEFRA, 2004). According to a report of confederation of Indian Industries, the total waste generated by the obsolete or broken down electronic or electrical equipments in India are estimated to be 146000 tons per year. The field survey conducted in one of the metropolitan city of India has shown the average usage and life of the personal computers (PCs), mobile phones and televisions showed that the average household usage of the PC ranges from 0.39 to 1.70 depending on the income class. In the case of TVs it varied from 1.07 to 1.78 and for mobile phone from 0.88 to 1.70. The low income households use the PC for 5.94 years, TV for 8.5 years and mobile phone for 2.4 years. Growth rate of mobile phones (80%) is very high as compared to PC (20%) and TV (18%). The public awareness on e-waste and the willingness of the public to pay for e-waste management ranges from 3.57% to 5.92% of the product cost of PC and 3.94 to 5.95 % for TV and 3.4 to 5% for mobile phone.

SIGNIFICANCE OF THE STUDY:

Electronic waste or e-waste is one of the rapidly growing problems of the world. The old electronic appliances such as computers, laptops, TVs, DVD players, mobile phones and mp3 players etc which are disposed off by their original users come in the category of e-waste. The electronic appliances when they become useless come in the category of e-waste. Waste from the white and brown goods is less toxic as compared with grey goods. This new kind of waste is posing a serious challenge in disposal and recycling in both developed and developing countries. E-wastes are considered dangerous, as certain components of some electronic products contain materials that are hazardous, depending on their condition and density. The hazardous content of these materials pose a threat to human health and environment. Many of these products can be reused, refurbished, or recycled in an environmentally sound manner so that they are less harmful to the ecosystem. Many discarded machines contain usable parts which could be salvaged and combined with other used equipment to create a working unit. It is

labor intensive to remove, inspect and test components and then reassemble them into complete working machines. Institutional infrastructures, including e-waste collection, transportation, treatment, storage, recovery and disposal, need to be established, at national and/or regional levels for the environmentally sound management of e-wastes. These facilities should be approved by the regulatory authorities and if required provided with appropriate incentives. Establishment of e-waste collection, exchange and recycling centers should be encouraged in partnership with governments, NGOs and manufacturers. Establishment of e-waste collection, exchange and recycling centers should be encouraged in partnership with private entrepreneurs and manufacturers. In the schools, the computers play a vital role. In all the sections, the students, teaching staff and non teaching staff utilize computer for their academic activities, non academic activities. The higher secondary students from aided, government and self financed schools should know about the awareness on e-waste and its impact of health hazards. Because these students may go to various departments for their higher studies. Thus the present study is likely to make a reasonable contribution as it aims at study the awareness on e-waste among aided, government and self financed higher secondary students.

OBJECTIVE OF THE STUDY:

- To find out whether there is any significant difference among government, aided and self-financed school higher secondary students in their awareness on e-waste.

HYPOTHESIS OF THE STUDY:

- There is no significant difference among government, aided and self-financed school higher secondary students in their awareness on e-waste.

METHODOLOGY AND INSTRUMENTATION:

The investigator used Survey method research. Awareness on e-waste scale is prepared by the investigator and guide (2018) for collecting data. The tool is a 3 point scale. The positive items in the used research tool conversely a score of 3 was given for agree, 2 for undecided, 1 for disagree. The investigator has selected 300 XI and XII students from 10 higher secondary schools of Kovilpatti Taluk. For selecting the students the investigator used random sampling method. For inferential analysis of collected data, the investigator used F-test and Scheffe test.

INFERENTIAL ANALYSIS OF DATA:

Null Hypothesis: There is no significant difference among government, aided and self-financed school higher secondary students in their awareness on e-waste.

Table 1: ANOVA showing the significant difference among government, aided and self-financed school higher secondary students in their awareness on e-waste

Variable	Sources Variance	Sum of Squares	df	Mean	Calculated 'F' Value	Tabulated 'F' Value	Remark
Awareness on e-waste	Between Groups	677.120	2	338.560	17.61	3.03	S*
	Within Groups	5708.517	297	19.221			

*S – Significant at 5% level of significance

It is inferred from the above table that, the calculated 'F' value (17.61) is greater than the table value (3.03) for df (2, 297) at 5% level of significance. Hence the null hypothesis is rejected. It shows that there is significant difference among government, aided and self-financed school higher secondary students in their awareness on e-waste.

Table 2: Scheffe test showing the mean difference among government, aided and self-financed school higher secondary students in their awareness on e-waste

Government School	Aided School	Self-financed School	Result
74.35	75.55	-	-
-	75.55	78.08	*
74.35	-	78.08	*

**Mean difference at 5% level of significance*

The result from Scheffe test showed that there is significant difference between aided and self-financed school higher secondary students and also between government and self-financed school higher secondary students in their awareness on e-waste. And also the self-financed school higher secondary students have greater awareness on e-waste than the government and aided school higher secondary students.

FINDINGS AND CONCLUSION:

The investigator found that there is significant difference between aided and self-financed school higher secondary students and also between government and self-financed school higher secondary students in their awareness on e-waste. From the Scheffe test, the investigator concluded that the self-financed school higher secondary students have greater awareness on e-waste than the government and aided school higher secondary students. So the investigator suggested that each and every school students should know about the awareness on e-waste. From school days itself, with school curriculum, the higher secondary students additionally learn and know the recycling of e-waste by scientific, healthy and environmental friendly methods. Because they are the future of the digital society. The channelization of the e-waste for proper recycling and establishing a system of accountability in e-waste management would only happen if effective awareness could be established amongst all the youngsters.

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